

CLAIM AMENDMENTS

1.-3. (Canceled)

4. (Currently amended) A method of reclaiming static IP addresses from a client machine connected to a network utilizing a dynamic host configuration protocol (DHCP) server, comprising the steps of:

_____ sending a DHCP RECLAIM command to the client machine having the static IP address to be reclaimed;

_____ setting a state of the static IP address to be reclaimed to FREE;
wherein the step of setting a state of the static IP address to be reclaimed to FREE is dependent on a step of receiving an acknowledgment of the DHCP RECLAIM command from the client machine; and

~~The method of claim 2,~~ further comprising the step, performed before the step of setting a state of the static IP address to be reclaimed to FREE, of setting a state of the static IP address to be reclaimed to DEPRECATED.

5. (Original) The method of claim 4, further comprising the step of seeding an address resolution protocol (ARP) cache with a physical address of the client machine.

6. (Original) The method of claim 4, further comprising, while the state of the static IP address to be reclaimed is DEPRECATED, the steps of:

receiving a DHCP DISCOVER request from the client machine having the static IP address whose state is DEPRECATED;

setting the state to FREE; and

sending an IP address to the client machine.

7. (Original) The method of claim 4, further comprising, while the state of the static IP address to be reclaimed is DEPRECATED, the steps of:

receiving a DHCP RENEW request from the client machine having the static IP address whose state is DEPRECATED; and
sending a NACK to the client machine.

8. (Original) The method of claim 4, further comprising the step of re-transmitting after the expiration of an interval the DHCP RECLAIM command.

9. (Original) The method of claim 8, wherein the step of re-transmitting is performed for maximum a preset number of times.

10. (Original) The method of claim 4, further comprising the step of setting the state to FREE after a maximum lifetime of the DEPRECATED state.

11. (Canceled)

12. (Currently amended) The computer-readable media of ~~claim 11~~, having stored thereon further computer-executable instructions for performing the method of claim 4.

13.-21. (Canceled)

22. (Currently amended) A method of connecting to a network to achieve an IP address through DHCP, comprising the steps of:
determining whether a current IP address exists;
determining whether the current IP address is marked for removal;
entering a DHCP INIT state when there is no current IP address;
entering a DHCP INIT state when the current IP address is marked for removal;
entering a DHCP INIT REBOOT state when the current IP address is not marked for removal; and

~~The method of claim 21,~~ wherein after performing the step of entering a DHCP INIT_REBOOT state, further comprising the step of entering the DHCP INIT state if a negative acknowledgment (NACK) is received in response to the step of entering a DHCP INIT_REBOOT state.

23.-24. (Canceled)

25. (Original) A method of assigning an IP address to a client machine from a dynamic host configuration protocol (DHCP) server, comprising the steps of:
receiving a DHCP DISCOVER request from a client;
determining whether an IP address in a DEPRECATED state is currently assigned to the client;
setting the state of the IP address to FREE if there is an IP address in a DEPRECATED state assigned to the client; and
providing a new IP address to the client.

26. (Original) A computer-readable media having stored thereon computer-executable instructions for performing the method of claim 25.

27. (Original) A method of assigning an IP address to a client machine from a dynamic host configuration protocol (DHCP) server, comprising the steps of:
receiving a DHCP RENEW request from a client;
determining whether an IP address in a DEPRECATED state is currently assigned to the client;
setting the state of the IP address to FREE if there is an IP address in a DEPRECATED state assigned to the client; and
sending a negative acknowledgment (NACK) to the client.

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28. (Original) A computer-readable media having stored thereon computer-executable instructions for performing the method of claim 27.